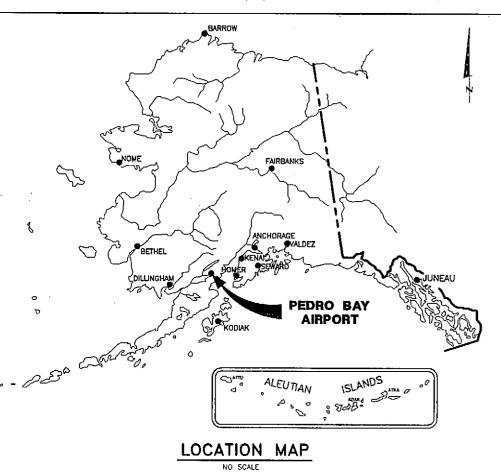
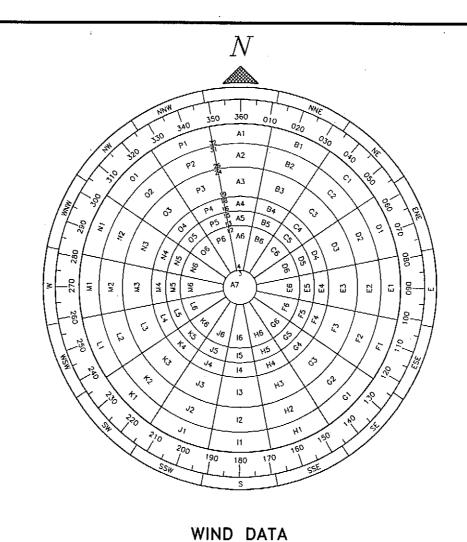


# VICINITY MAP

1"=1 MILE T 4 5, R 28 W, SEC. 29+32 SEWARD MERIDIAN U.S.G.S. ILIAMNA (D-4), ALASKA





DEVIATION FROM	1 S	TANDA	RDS	
ITEM		EXISTING	STANDARD	FUTURE
****			<u> </u>	-
				<del></del>
<del></del>				

NONE AVAILABLE

	OBSTRUCTIONS	TO FAR	PART 77	7 SURF	ACE
	ITEM	ITEM EXISTING		STANDARD	FUTURE
1	HORIZONTAL	MOUNTAINS	876'	0	876'
2	CONICAL	RUATHUOM	1700'	0	1700°
3	HORIZONTAL	MOUNTAINS	976'		
4	CONICAL	MOUNTAINS	950'	0	950'
5	CONICAL	MOUNTAINS	776'	0	776'
- 6	APPROACH	TREES	7'	0	0
7	APPROACH	ROAD	7.4'	0	9.6'

BASI	CDATA	TABLE		÷
	RUNWAY DAT	A	· · · · · ·	
:	RUNWAY	27/60	RUNWAY	/
ITEM	EXISTING	FUTURE	EXISTING	FUTURE
EFFECTIVE GRADE	0.58%			
% WIND COVERAGE	N/A		1	
INSTRUMENT RUNWAY	NONE		1	
RUNWAY SURFACE	GRAVEL .	_		
PAVEMENT STRENGTH (LBS.)	N/A		1 1	
APPROACH SURFACES	20:1,VISUAL		1.	
RUNWAY LIGHTING	M.IRL.	· ·		
RUNWAY MARKING	NONE			
NAVIGATION AIDS	NONE			
RUNWAY SAFETY AREA DIMENSION	120° x 3480°	<b></b>	<del>-</del>	
RUNWAY DIMENSION	60' x 3000'			
RUNWAY 9 END COORDINATES (NAD 83)	. 5947'5426" N	<u> </u>	<del></del>	<del></del>
STA_2+00	154°08'15.30" W	<del>                                     </del>	1	
RUNWAY 27 END COORDINATES (NAD 83)	59'47'43.84" N	· · · · · · · · · · · · · · · · · · ·	1	
STA,32+00	154'07'20.43" W	<del>                                     </del>	· <del> </del>	
RUNWAY OBJECT FREE AREA DIMENSIONS	250'x 3480'	[ <del></del>	<b></b>	

BASIC DATA	TABLE		
AIRPORT DA	TA		
ITEM	······································	EXISTING	FUTURE
AIRPORT ELEVATION (M.S.L.)		69.82*	69.82
AIRPORT REFERENCE POINT (A.R.P.)(NAD B3)	LAT.		3.83 N
	LONG.		0.43 W
TAXIWAY LIGHTING		NONE	M.I.T.L.
RAMP LIGHTING		NONE	NONE
MEAN MAX. TEMPERATURE, HOTTEST MONTH (F)		62°F,	JULY
MAGNETIC DECLINATION, YEAR		21,00, 1	E, 1995
AJRPORT CATAGORY		B-1 (UTLTY)	B-1 (UTILITY
<del></del>	<u>-</u>		
···			
	<del></del> -		

LEGEND						
ITEM	EXISTING	FUTURE				
PROPERTY LINE						
BUILDING RESTRICTION LINE (B.R.L.)	B.R.L	B.R.L.				
AIRPORT REFERENCE POINT (A.R.P.)	0					
WIND CONE AND SEGMENTED CIRCLE (LIGHTED)	i š	<u> </u>				
CONTOURS						
ROADWAYS (PAVED)						
ROADWAYS (UNPAVED)	======	2 10 10 10 10 10				
BUILDINGS	1.5					
ROTATING BEACON	90€	20-				
SHORELINE	*********					
ANTENNA		A				
SECURITY FENCE	<del>-x-x-x-</del>					
TREES	Professional Control	N/A				
THRESHOLD	本本本本	2000				
VASI	==	11.				
CONCRETE/ASPHALT PAD						
UTILITY POLE	روح	70,				
GLIDE SLOPE CRITICAL AREA	<u> </u>					
SURVEY MONUMENT - BLM BRASS CAP	€€)	†				
SURVEY MONUMENT - ALUM, CAP	•	†				
RIP RAP		1 1000				
		1				

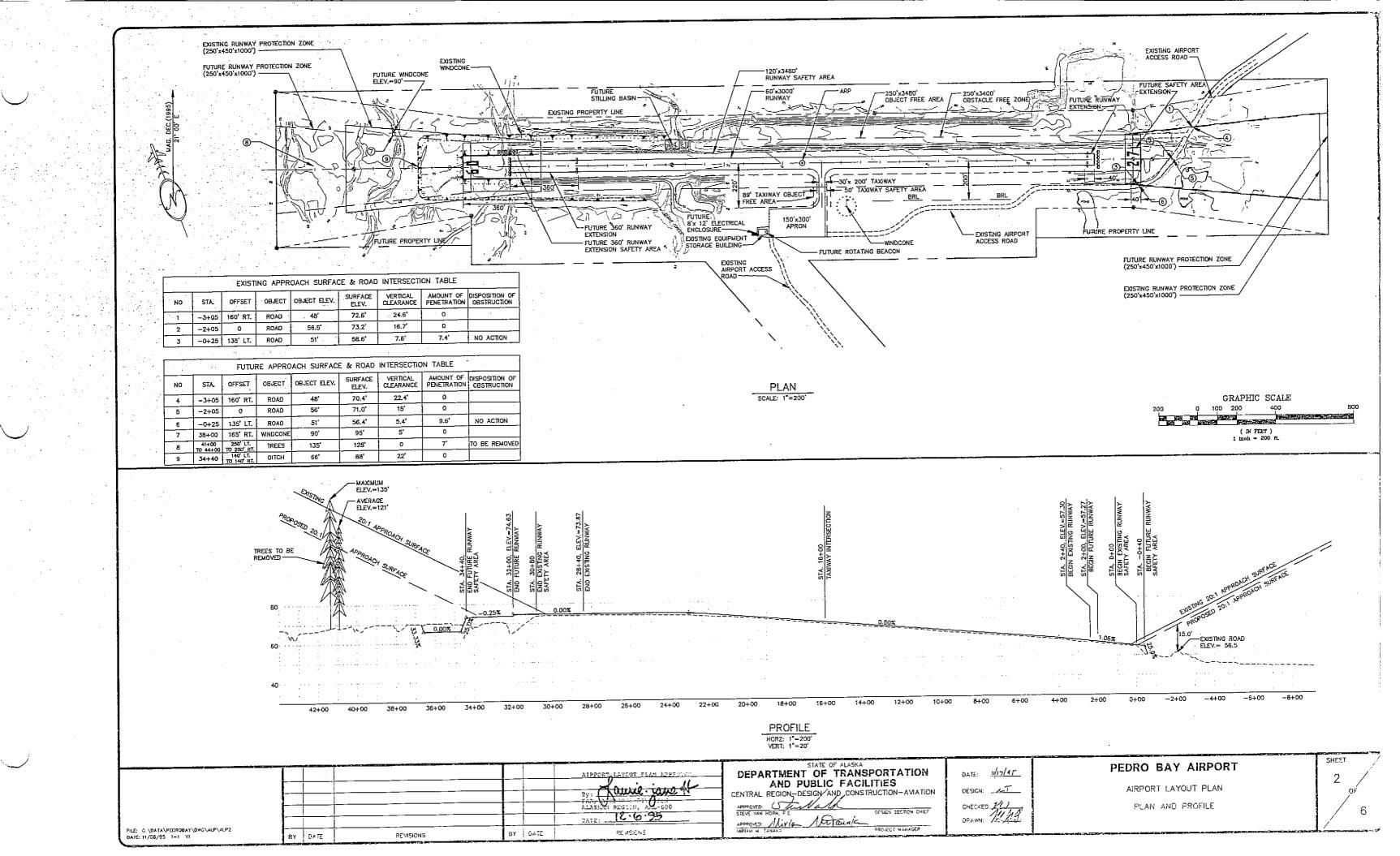
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				1/1.4		DINNIAY COORDINATES HONATES DES CAL DESIGNATES
	<u> </u>			Wit.	6-20-01	RUNWAY COORDINATES UPDATED PER-FAA REQUEST
E: G:\DATA\PEDROBAY\DWG\ALP\ALPI	i					FAA APPROVED
TE: 11/08/95 1-1 VI						
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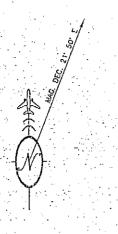
STATE OF ALAS	
DEPARTMENT OF TRA	
AND PUBLIC FA	CILITIES
CENTRAL REGION, DESIGN AND CO	INSTRUCTION-AMATIO
APPROVED: Sterlander	<u>-</u>
STEVE VAN HORN, P.E.	DESIGN SECTION CHIEF
APPROVED: / DULLI as	
MIRIAM M. TANÀKA, P.E.	PROJECT MANAGER

DATE: 11/11/45 DESIGN: \_\_\_\_\_ CHECKED: KL)
DRAWN: 1144 PEDRO BAY AIRPORT AIRPORT LAYOUT PLAN

TABLES AND MAPS

SHEET







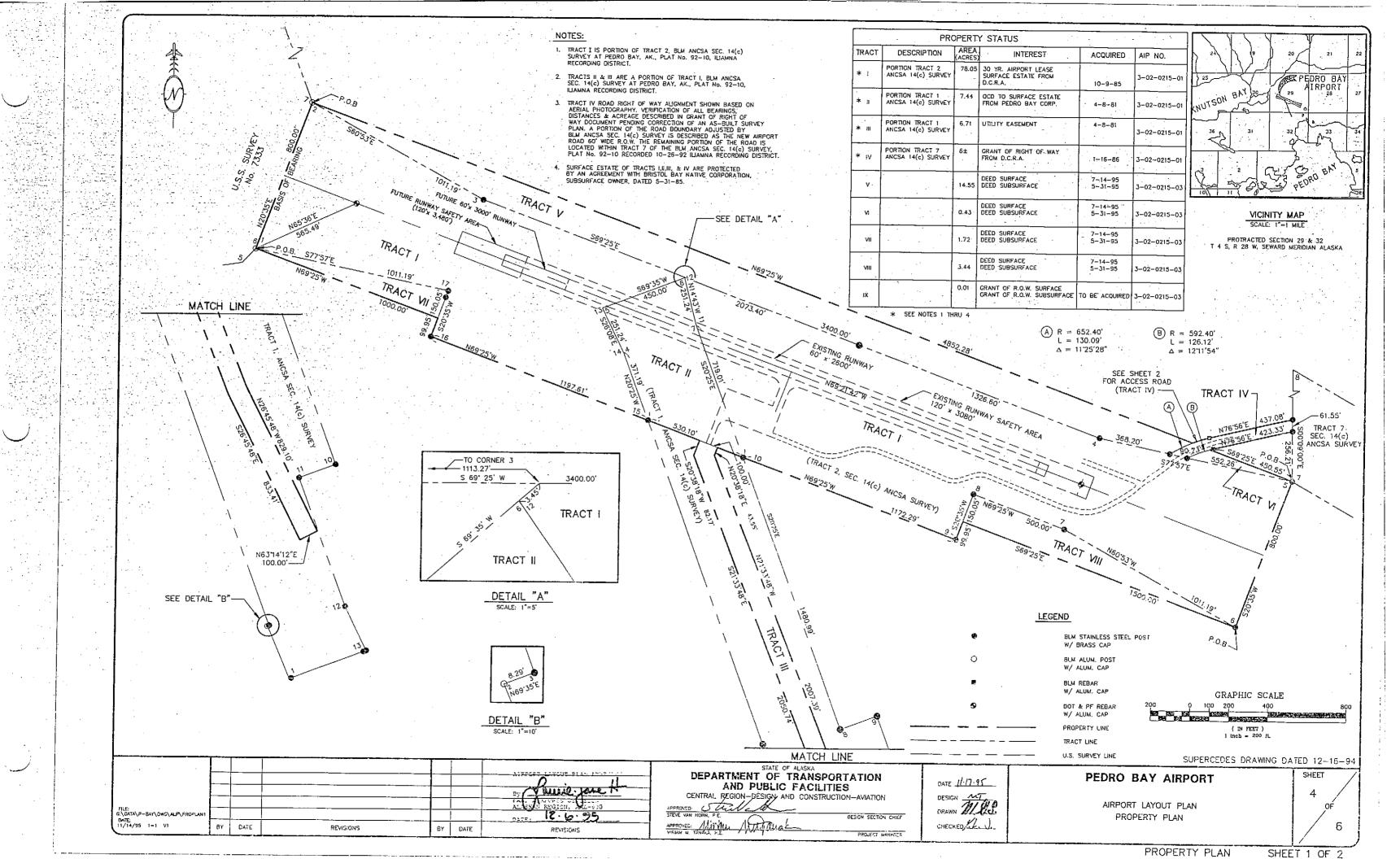
# OBSTRUCTIONS TO FAR PART 77 SURFACE

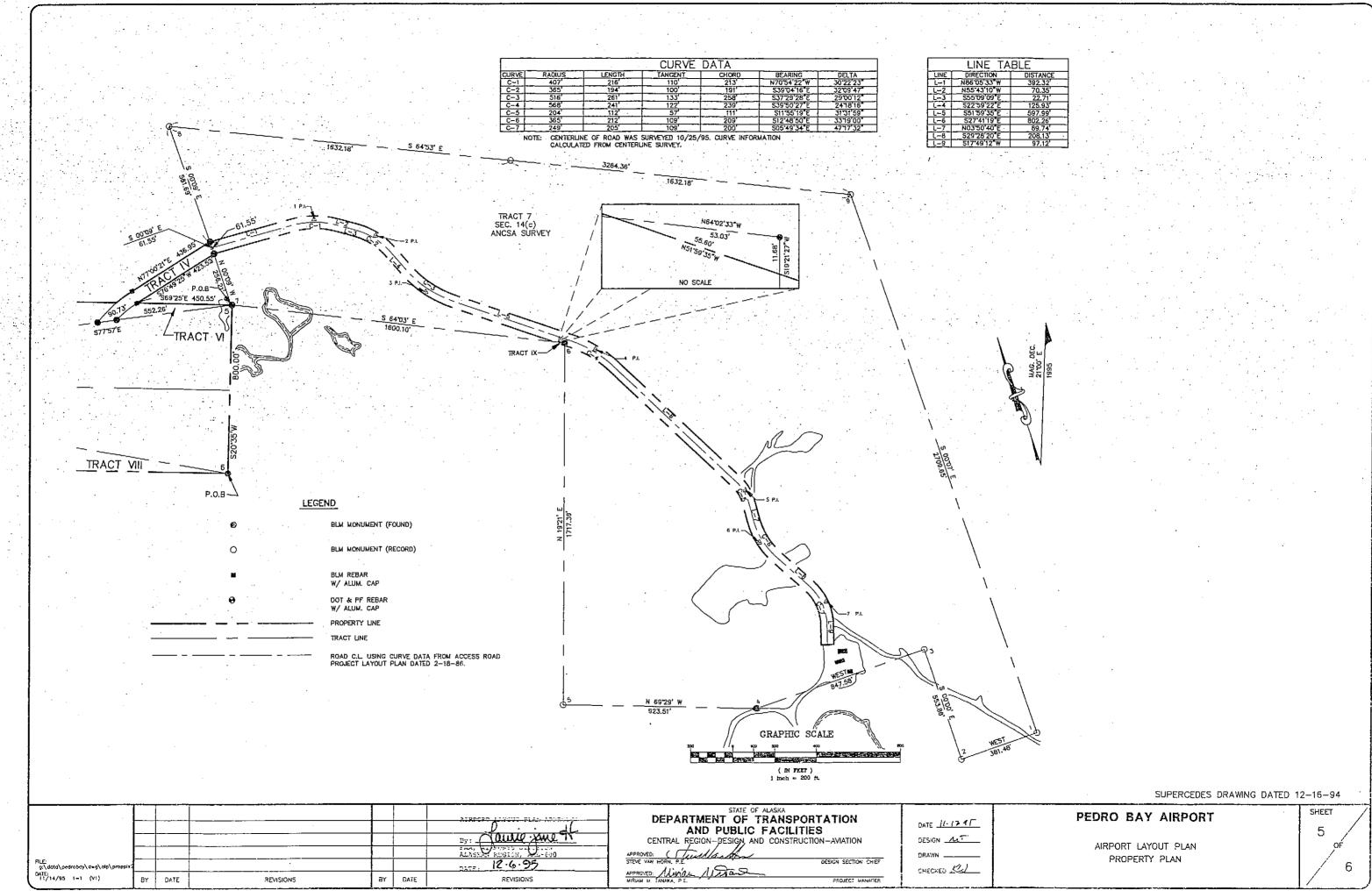
	SURFACE	OBSTRUCTION	EXISTING	STANDARD	FUTURE	CISPOSITION
1	HORIZONTAL	MOUNTAINS	876*	0,	876*	N/A
2	CONICAL	MOUNTAINS	· 1700'	0'	1700'	· N/A
3	HORIZONTAL	MOUNTAINS	976"	0,	976*	N/A
4	CONICAL	MOUNTAINS	650,	0' -	950'	N/A
5	CONICAL	MOUNTAINS	776'	0,	776*	NIA
ε	AFFROACH	TREES	7' -	0,	υ,	TO DE REMOVED
7	APPROACH	ROAD	7.4	G'	2.6	N'A

GRAPHIC SCALE

(IN FEET )

				1	1 SHEE!	1
	AIRPORT LAYOUT FLAN AFTONNAL	DEPARTMENT OF TRANSPORTATION	nes ulnits	PEDRO BAY AIRPORT	7	l
	- Clanker Souge IV	AND PUBLIC FACILITIES	DESIGN WIT		3 /	
	10: Atantal 100 10 10 10 10 10 10 10 10 10 10 10 10	CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION	10.000	AIRPORT LAYOUT PLAN F.A.F. FAFT 77	,0"	1
n.E	2 - 6 - 95	STEVE WELL MEN. P. C.	1-50 ET 1/44	CAR PART //	/ 6	
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# PEDRO BAY AIRPORT AIRPORT LAYOUT PLAN NARRATIVE

#### A INTRODUCTION

This Airport Layout Plan (ALP) supersedes the ALP approved by FAA on November 15,

The Village of Pedro Bay is located on the northeast end of Iliamna Lake, approximately 150 air miles from Anchorage. The community has approximately 45 year round residents. There are no roads to Pedro Bay and river access is limited to summer months. Air transportation is the only year round mode of transportation for cargo and passengers to and from Pedro

The Alaska Aviation System Plan (AASP) has designated this airport as a Community class which is defined as the primary access to a small rural community of at least 25 permanent year round residents without other reliable year round access.

There are no continually based aircraft at the airport. It is projected that there will be no continually based aircraft at the airport through the midterm. Iliamna Air Taxi provides the only scheduled service into Pedro Bay. There are four scheduled flights a week and on average there are 5 charters per week for a total of 9 weekly flights. It is estimated that there are 2,000 operations per year. There were approximately 680 enplanments in 1994. Records are not kept and the actual number of operations at the airport is unknown. It is anticipated that the proposed configuration of the airport will provide adequate capacity for the foreseeable future.

Currently, the cirport is served primarily by single engine airplanes, such as Cessna 207's and Piper Cherokee's. Some small twin engine aircraft, such as the Dehavilland Twin Otter and the Piper Navajo, occasionally serve Pedro Bay. As the existing fleet ages, it will become increasingly more difficult to replace the small single engine aircraft as they are no longer being manufactured. The aircraft fleet will tend to be more reliant on the small twin engine aircraft that are available, such as the Piper Navajo and the Cessna 402. Therefore, the Pedro Bay Almort was designed to B-I standards Bay Airport was designed to B-I standards.

The runway currently has no lighting. A medium intensity lighting system will be installed as part of the proposed project. There is no existing instrument approach at the airport. Any future instrument approach would require high minima due to the mountainous terrain.

The existing runway was built in 1986. Due to the mountainous terrain, there is no other reasonable alignment for the runway. At the present time there is no wind data available for Pedro Bay or any village near Pedro Bay. Since no re-alignment of the runway is planned for the near to long term, collection of wind data is of limited value.

### C. DEVELOPMENT

Near Term (0-5 years)

The near term development plan for the Pedro Bay Airport will include the following:

- 1. Extend the runway from 2,600 feet to 3,000 feet.
- 2. Drainage enhancements.
- Resurface the runway, taxiway and apron with aggregate surface course.
- 4. Clear existing trees in the 20:1 approach surface at the west end of the runway.
- 5. Install a medium intensity lighting system.
- 6. Acquire approximately 20 acres of property on the north and south sides of the

Midterm (5–10 year) and Long term (10–20 year)

Midterm and long term development at the airport may consist of adding additional apron area if it becomes necessary due to a fixed based operator.

# D. DESIGN RATIONALE

Runway Extension — The existing runway is 2,600 feet long with a safety area of 3,080 feet long. The Alaska Aviation System Plan (AASP) recommends a standard length of 3,000 for community airports. FAA AC 150/5325—4A, Runway Length Requirements for Airport Design, gives a range of recommended runway lengths for airports. For the B—I design group, a runway length of 2,770 feet will accommodate 95% of the airplanes, and a runway length of 3,280 feet will accommodate 100% of the small airplanes with under 10 passenger seats. The design length of 3,000 feet is adequate for aircraft presently using the airport and for anticipated usage. In order to avoid additional property acquisition, the runway will be extended 40 feet on the west end and 360 feet on the east end.

Drainage Enhancements — The existing runway has been damaged by flood waters from Clear Creek on the north side of the runway. The proposed project will remove the five damaged culverts under the runway and route creek flow around the west end of the runway to the existing drainage channel. To prevent further damage, the runway embankment will be armored and a stilling basin will be constructed at the inflow of the existing culverts.

Resurface runway, apron and taxiway — The existing runway will be resurfaced with 9 inches of aggregate surface course and the taxiway and apron will be resurfaced with 6 inches of aggregate surface course.

Clearing — Trees encroach into the 20:1 approach surface on the west end of the runway between Stations 41+00 and 44+00. These trees will be cleared 250 feet left and right of runway centerline as part of this project.

Airport Lighting — Medium intensity, radio controlled lighting will be installed on the runway to enhance safety during darkness and bad weather conditions, and increase successful emergency medical aircraft operations.

Airport Property Acquisition — Near term development will include the acquisition of approximately 20 acres. FAA Advisory Circular 150/5300—13 requires that the area under the FAR Part 77 imaginary surface out to where the surface attains a height of at least 35 feet above the primary surface airport property. The transitional surface attains a height of 35 feet above the primary surface 375 feet from runway centerline. ADOT&PF will acquire property 400 feet left and right of the runway centerline.

Approximately 0.01 acres will be acquired along the alroot access road right of way, as shown an sheet 5.

on sheet 5.

# PEDRO BAY AIRPORT DESIGN STANDARDS (B-1, FOR SMALL AIRCRAFT EXCLUSIVELY)

ПЕМ	EXISTING	STANDARD	FUTURE
RUNWAY LENGTH	2600	3280+	3000
RUNWAY WIDTH	60	60	60 .
RUNWAY SHOULDER WIDTH	. 10	10	10
RUNWAY SAFETY AREA WIDTH	120	120	120
RUNWAY SAFETY AREA LENGTH			
BEYOUND RUNWAY ENDS	240	240	240
RUNWAY OBJECT FREE AREA WIDTH	250	250	250
RUNWAY OBJECT FREE AREA LENGTH			
BEYOUND RUNWAY ENDS	240	240	240
RUNWAY OBJECT FREE ZONE WIDTH	250	250	250
TAXIWAY WIDTH	30	25	30
TAXIWAY SAFETY AREA WIDTH	50	49	50
TAXIWAY OBJECT FREE AREA WIDTH	89	89	89
AIRCRAFT PARKING AREA SETBACK	220	125	220
RUNWAY PROTECTION ZONE LENGTH	1000	1000	1000
RUNWAY PROTECTION ZONE INNER WIDTH	250	250	250
RUNWAY PROTECTION ZONE OUTER WIDTH	450	450	450
APPROACH SLOPE	20:1	20:1	20:1

. FOR 100% OF SMALL AIRPLANES WITH LESS THAN 10 PASSENGER SEATS

# E. PROPERTY STATUS

The airport is situated within approximately 98 acres in 4 tracts. The State of Alaska has a 30 year lease on Tract I, deed to surface on Tract II, a utility easement on Tract III, and a grant of right of way on Tract IV. Near term development will require acquisition of 20 acres of additional property.

#### F. COMMUNITY INVOLVEMENT AND COORDINATION

In July, 1994 representatives from DOT&PF traveled to Pedro Bay to inspect the airport and to meet with Debi Jacko, the Village Administrator. The DOT&PF staff has solicited comments throughout the design process and has on file written expression of support from the Village of Pedro Bay.

# G. OBSTRUCTIONS TO THE FAR PART 77 SURFACE

Mountains to the northeast of the airport encroach up to 876 feet into the horizontal surface and up to 1700' into the conical surface. On the southwest side of the airport, mountains encroach the horizontal and conical surfaces up to 976 feet and 950 feet, respectively. On the northwest side of the airport mountains encroach the conical surface up to 776 feet. Airport development will not decrease the current encroachment. Relocation of the airport is not feetible hospitals in mountains encroachment. is not feasible because of the village location in mountainous terrain.

The 350 foot extension on the west end of the runway will cause encroachment of trees into the 20:1 approach surface. These trees will be cleared between Stations 41+00 and 44+00, approximately 250' left and right of the runway centerline as part of the proposed project.

Prior to the extension of the runway, the penetration of . . Airport access road into the RPZ at Runway 27 was 7.4 feet at the intersection of the and and the south edge of the RPZ. Extension of the runway has increased this pener, .io.: to 9.6 feet. The road does not penetrate into the RPZ at the north edge of the RPZ or at the extended runway centerline. The volume of raffic on the road is light and the vehicles are light duty passenger vehicles or small all terrain vehicles. The access road was originally aligned to avoid archeological artifacts and to minimize wetlands impact, so really ment, now gractical

				-	·			
				AIPPORT LAYOUT FLAM APPROVED	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION	DATE: <u>11-17-95</u>	PEDRO BAY AIRPORT	SHEET
				By: Jame Xuel	AND PUBLIC FACILITIES CENTRAL REGION_DESIGN AND CONSTRUCTION—AVIATION	DESIGN:	AIRPORT LAYOUT PLAN	D OF
				ALASKAN REGION, AND-600	APPHOVED: TIMBE OF DESIGN SECTION CHIEF	DRAWN: 4/19	NARRATIVE REPORT	6
FILE: C:\DATA\PEDROBAY\DWC\ALP\ALP4	BY DATE	REVISIONS	BY DATE	REVISIONS	APPROVED: MYSELL VIII WILL PROJECT HANAGER PROJECT HANAGER			CASHENDOLIZ DOMENIA